

Experiment Number: 90004-05

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

Date Report Requested: 10/22/2014

Time Report Requested: 15:01:00

First Dose M/F: NA / NA

Lab: BNW

C Number: C90004

Lock Date: 08/25/1997

Cage Range: All

Date Range: All

Reasons For Removal: All

Removal Date Range: All

Treatment Groups: All

Study Gender: Both

PWG Approval Date NONE

Experiment Number: 90004-05

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AVERAGE SEVERITY GRADES[b]

Time Report Requested: 15:01:00

Test Compound: Propylene glycol mono-t-butyl ether

CAS Number: 57018-52-7

First Dose M/F: NA / NA

Lab: BNW

| F 344/N Rat MALE | CONTROL | 75 PPM | 150 PPM | 300 PPM | 600 PPM | 1200 PPM |
|----------------------------------|---------|--------|---------|---------|---------|----------|
| Disposition Summary | | | | | | |
| Animals Initially In Study | 10 | 10 | 10 | 10 | 10 | 10 |
| Early Deaths | | | | | | |
| Survivors | | | | | | |
| Terminal Sacrifice | 10 | 10 | 10 | 10 | 10 | 10 |
| Animals Examined Microscopically | 10 | 10 | 10 | 10 | 10 | 10 |
| ALIMENTARY SYSTEM | | | | | | |
| Esophagus | (10) | (0) | (0) | (0) | (0) | (10) |
| Intestine Large, Cecum | (10) | (0) | (0) | (0) | (0) | (10) |
| Intestine Large, Colon | (10) | (0) | (0) | (0) | (0) | (10) |
| Intestine Large, Rectum | (10) | (0) | (0) | (0) | (0) | (10) |
| Intestine Small, Duodenum | (10) | (0) | (0) | (0) | (0) | (10) |
| Intestine Small, Ileum | (10) | (0) | (0) | (0) | (0) | (9) |
| Intestine Small, Jejunum | (10) | (0) | (0) | (0) | (0) | (10) |
| Liver | (10) | (1) | (0) | (0) | (1) | (10) |
| Hepatodiaphragmatic Nodule | 1 | | | | | |
| Mesentery | (0) | (0) | (0) | (1) | (0) | (0) |
| Fat, Necrosis | | | | 1 [2.0] | | |
| Oral Mucosa | (1) | (0) | (0) | (0) | (0) | (0) |
| Pancreas | (10) | (0) | (0) | (0) | (0) | (10) |
| Salivary Glands | (10) | (0) | (0) | (0) | (0) | (10) |
| Stomach, Forestomach | (10) | (0) | (0) | (0) | (0) | (10) |
| Stomach, Glandular | (10) | (0) | (0) | (0) | (0) | (10) |
| CARDIOVASCULAR SYSTEM | | | | | | |
| Heart | (10) | (0) | (0) | (0) | (0) | (10) |
| Cardiomyopathy | 3 [1.0] | | | | | 3 [1.3] |
| ENDOCRINE SYSTEM | | | | | | |

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Experiment Number: 90004-05

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

Test Compound: Propylene glycol mono-t-butyl ether
CAS Number: 57018-52-7

Date Report Requested: 10/22/2014

Time Report Requested: 15:01:00

First Dose M/F: NA / NA

Lab: BNW

| F 344/N Rat MALE | CONTROL | 75 PPM | 150 PPM | 300 PPM | 600 PPM | 1200 PPM |
|------------------------------------|---------|---------|---------|---------|---------|----------|
| Adrenal Cortex | (10) | (0) | (0) | (0) | (0) | (10) |
| Adrenal Medulla | (10) | (0) | (0) | (0) | (0) | (10) |
| Islets, Pancreatic | (10) | (0) | (0) | (0) | (0) | (10) |
| Parathyroid Gland | (7) | (0) | (0) | (0) | (0) | (8) |
| Pituitary Gland | (10) | (1) | (0) | (0) | (0) | (10) |
| Cyst | | 1 [3.0] | | | | |
| Thyroid Gland | (10) | (0) | (0) | (0) | (0) | (10) |
| GENERAL BODY SYSTEM | | | | | | |
| None | | | | | | |
| GENITAL SYSTEM | | | | | | |
| Epididymis | (10) | (0) | (0) | (0) | (0) | (10) |
| Preputial Gland | (10) | (0) | (0) | (0) | (0) | (10) |
| Prostate | (10) | (0) | (0) | (0) | (0) | (10) |
| Seminal Vesicle | (10) | (0) | (0) | (0) | (0) | (10) |
| Testes | (10) | (0) | (0) | (0) | (0) | (10) |
| HEMATOPOIETIC SYSTEM | | | | | | |
| Bone Marrow | (10) | (0) | (0) | (0) | (0) | (10) |
| Lymph Node, Bronchial | (10) | (0) | (0) | (0) | (0) | (9) |
| Lymph Node, Mandibular | (9) | (0) | (0) | (0) | (0) | (10) |
| Lymph Node, Mediastinal | (7) | (0) | (0) | (0) | (0) | (7) |
| Lymph Node, Mesenteric | (10) | (0) | (0) | (0) | (0) | (10) |
| Inflammation, Granulomatous, Focal | 3 [1.0] | | | | | 2 [1.0] |
| Spleen | (10) | (0) | (0) | (0) | (0) | (10) |
| Thymus | (10) | (0) | (0) | (0) | (0) | (10) |
| INTEGUMENTARY SYSTEM | | | | | | |
| Mammary Gland | (5) | (0) | (0) | (0) | (0) | (7) |
| Skin | (10) | (0) | (1) | (0) | (0) | (10) |

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Experiment Number: 90004-05

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH Date Report Requested: 10/22/2014

AVERAGE SEVERITY GRADES[b]

Time Report Requested: 15:01:00

Test Compound: Propylene glycol mono-t-butyl ether

CAS Number: 57018-52-7

First Dose M/F: NA / NA

Lab: BNW

| F 344/N Rat MALE | CONTROL | 75 PPM | 150 PPM | 300 PPM | 600 PPM | 1200 PPM |
|---|----------|----------|----------|----------|----------|----------|
| Inflammation, Suppurative | | | 1 [2.0] | | | |
| MUSCULOSKELETAL SYSTEM | | | | | | |
| Bone | (10) | (0) | (0) | (0) | (0) | (10) |
| NERVOUS SYSTEM | | | | | | |
| Brain | (10) | (0) | (0) | (0) | (0) | (10) |
| RESPIRATORY SYSTEM | | | | | | |
| Larynx | (10) | (0) | (0) | (0) | (0) | (10) |
| Lung | (10) | (0) | (0) | (0) | (0) | (10) |
| Inflammation, Chronic, Focal | 3 [1.0] | | | | | 5 [1.2] |
| Nose | (10) | (10) | (10) | (10) | (10) | (10) |
| Olfactory Epi, Degeneration, Hyaline | | | | | 4 [1.0] | 8 [1.0] |
| Respirat Epith, Hyperplasia | | | | | | 1 [2.0] |
| Respirat Epith, Metaplasia, Squamous | | | | | | 1 [1.0] |
| Trachea | (10) | (0) | (0) | (0) | (0) | (10) |
| SPECIAL SENSES SYSTEM | | | | | | |
| None | | | | | | |
| URINARY SYSTEM | | | | | | |
| Kidney | (10) | (10) | (10) | (10) | (10) | (10) |
| Medulla, Casts Granular | | | 8 [1.0] | 7 [1.1] | 6 [1.0] | 4 [1.0] |
| Renal Tubule, Accumulation, Hyaline Droplet | 10 [1.2] | 10 [1.0] | 10 [2.0] | 10 [2.0] | 10 [2.0] | 10 [2.4] |
| Renal Tubule, Regeneration | 6 [1.0] | 9 [1.0] | 10 [1.0] | 10 [1.3] | 10 [1.5] | 10 [1.6] |
| Urinary Bladder | (10) | (0) | (0) | (0) | (0) | (10) |

END OF MALE DATA

a - Number of animals examined microscopically at site and number of animals with lesion

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|------------------------------------|---------|--------|---------|---------|---------|----------|
| Disposition Summary | | | | | | |
| Animals Initially In Study | 10 | 10 | 10 | 10 | 10 | 10 |
| Early Deaths | | | | | | |
| Survivors | | | | | | |
| Terminal Sacrifice | 10 | 10 | 10 | 10 | 10 | 10 |
| Animals Examined Microscopically | 10 | 10 | 10 | 10 | 10 | 10 |
| ALIMENTARY SYSTEM | | | | | | |
| Esophagus | (10) | (0) | (0) | (0) | (0) | (10) |
| Intestine Large, Cecum | (10) | (0) | (0) | (0) | (0) | (10) |
| Intestine Large, Colon | (10) | (0) | (0) | (0) | (0) | (10) |
| Intestine Large, Rectum | (10) | (0) | (0) | (0) | (0) | (9) |
| Intestine Small, Duodenum | (10) | (0) | (0) | (0) | (0) | (10) |
| Intestine Small, Ileum | (10) | (0) | (0) | (0) | (0) | (10) |
| Intestine Small, Jejunum | (10) | (0) | (0) | (0) | (0) | (10) |
| Liver | (10) | (0) | (1) | (2) | (1) | (10) |
| Congestion | 1 [2.0] | | | | | |
| Inflammation, Granulomatous, Focal | 3 [1.3] | | | | | |
| Pancreas | (10) | (0) | (0) | (0) | (0) | (10) |
| Salivary Glands | (10) | (0) | (0) | (0) | (0) | (10) |
| Stomach, Forestomach | (10) | (0) | (0) | (0) | (0) | (10) |
| Stomach, Glandular | (10) | (0) | (0) | (0) | (0) | (10) |
| CARDIOVASCULAR SYSTEM | | | | | | |
| Blood Vessel | (0) | (0) | (0) | (0) | (0) | (1) |
| Heart | (10) | (0) | (0) | (0) | (0) | (10) |
| Cardiomyopathy | 1 [1.0] | | | | | 2 [1.0] |
| Hemorrhage | 2 [1.0] | | | | | 2 [1.0] |
| ENDOCRINE SYSTEM | | | | | | |

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| F 344/N Rat FEMALE | CONTROL | 75 PPM | 150 PPM | 300 PPM | 600 PPM | 1200 PPM |
|------------------------------------|---------|--------|---------|---------|---------|----------|
| Adrenal Cortex | (10) | (0) | (0) | (0) | (0) | (10) |
| Adrenal Medulla | (9) | (0) | (0) | (0) | (0) | (9) |
| Islets, Pancreatic | (10) | (0) | (0) | (0) | (0) | (10) |
| Parathyroid Gland | (8) | (0) | (0) | (0) | (0) | (8) |
| Pituitary Gland | (10) | (0) | (0) | (0) | (0) | (10) |
| Thyroid Gland | (9) | (0) | (0) | (0) | (0) | (10) |
| GENERAL BODY SYSTEM | | | | | | |
| None | | | | | | |
| GENITAL SYSTEM | | | | | | |
| Clitoral Gland | (10) | (0) | (0) | (0) | (0) | (10) |
| Ovary | (10) | (0) | (1) | (0) | (0) | (10) |
| Cyst | 1 [1.0] | | 1 [2.0] | | | |
| Uterus | (10) | (0) | (0) | (0) | (0) | (10) |
| HEMATOPOIETIC SYSTEM | | | | | | |
| Bone Marrow | (10) | (0) | (0) | (0) | (0) | (10) |
| Lymph Node, Bronchial | (8) | (0) | (0) | (0) | (0) | (8) |
| Lymph Node, Mandibular | (8) | (0) | (0) | (0) | (0) | (10) |
| Lymph Node, Mediastinal | (8) | (0) | (0) | (0) | (0) | (6) |
| Lymph Node, Mesenteric | (10) | (0) | (0) | (0) | (0) | (10) |
| Inflammation, Granulomatous, Focal | 9 [1.3] | | | | 5 [1.0] | |
| Spleen | (10) | (0) | (0) | (0) | (0) | (10) |
| Thymus | (10) | (0) | (0) | (0) | (0) | (10) |
| INTEGUMENTARY SYSTEM | | | | | | |
| Mammary Gland | (10) | (0) | (0) | (0) | (0) | (10) |
| Skin | (10) | (0) | (0) | (0) | (0) | (10) |
| MUSCULOSKELETAL SYSTEM | | | | | | |
| Bone | (10) | (0) | (0) | (0) | (0) | (10) |

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

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AVERAGE SEVERITY GRADES[b]

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CAS Number: 57018-52-7

First Dose M/F: NA / NA

Lab: BNW

| F 344/N Rat FEMALE | CONTROL | 75 PPM | 150 PPM | 300 PPM | 600 PPM | 1200 PPM |
|--------------------------------------|---------|--------|---------|---------|---------|----------|
| NERVOUS SYSTEM | | | | | | |
| Brain | (10) | (0) | (0) | (0) | (0) | (10) |
| RESPIRATORY SYSTEM | | | | | | |
| Larynx | (10) | (0) | (0) | (0) | (0) | (10) |
| Lung | (10) | (0) | (0) | (0) | (1) | (10) |
| Inflammation, Chronic, Focal | 3 [1.0] | | | | | 3 [1.0] |
| Serosa, Fibrosis | | | | | 1 [1.0] | |
| Nose | (10) | (10) | (10) | (10) | (10) | (10) |
| Olfactory Epi, Degeneration, Hyaline | | | | 1 [1.0] | 7 [1.0] | 10 [1.9] |
| Respirat Epith, Hyperplasia | | | 1 [2.0] | | | |
| Trachea | (10) | (0) | (0) | (0) | (0) | (10) |
| SPECIAL SENSES SYSTEM | | | | | | |
| Eye | (0) | (0) | (0) | (0) | (1) | (0) |
| Mineralization | | | | | 1 [1.0] | |
| URINARY SYSTEM | | | | | | |
| Kidney | (10) | (10) | (10) | (10) | (10) | (10) |
| Renal Tubule, Regeneration | 1 [1.0] | | | 2 [1.0] | 3 [1.0] | 1 [1.0] |
| Urinary Bladder | (10) | (0) | (0) | (0) | (0) | (10) |

** END OF REPORT **

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)